

ABSTRACT

A method and apparatus for stimulating producing strata in oil or gas wells. The formation is penetrated using existing shaped charges, and an oxygen-rich material then is introduced into the producing formation. Thus, oxygen is available
5 within the formation to sustain an explosive reaction with the existing formation hydrocarbons acting as fuel. This explosive reaction will cause fracturing of the formation and will counteract plugging that often results from the use of conventional shaped charges. In one embodiment, a container encloses shaped charges surrounded by oxygen-rich material. The shaped charges are ignited first, perforating the well casing
10 and any surrounding cement. Additional explosive charges at each end of the container then are ignited. This forces the oxygen-rich material into the perforation tunnels. Alternately, the oxygen can be a part of the shaped charge and projected into the formation with the shaped charge to accomplish the same results.